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(FILE 'HCAPLUS' ENTERED AT 16:15:36 ON 03 DEC 2010)

FILE 'REGISTRY' ENTERED AT 16:18:02 ON 03 DEC 2010

FILE 'HCAPLUS' ENTERED AT 16:18:04 ON 03 DEC 2010

E US2005-535373/AP

L25

1 S E3

SEL RN

FILE 'REGISTRY' ENTERED AT 16:29:49 ON 03 DEC 2010

L26

11 S E1-11

FILE 'HCAPLUS' ENTERED AT 16:30:36 ON 03 DEC 2010

L27

1 S L24 AND L25

L28

QUE (PHOTO OR LIGHT(N)SENS? OR PHOTOSENS? OR LIGHTSENS?

L29

14 S (L20 OR L22) AND L28

L30

11 S L29 NOT L24

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L30 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2010:940562 HCAPLUS Full-text

DOCUMENT NUMBER: 153:275104

TITLE: Semiconductor electrode containing
phthalocyanine dye and photoelectric converter
INVENTOR(S): Kamesaki, Hisamitsu; Torii, Masafumi; Hibino,
Eiko; Harada, Shigeyuki; Horiuchi, Tamotsu;
Takada, Mikiko; Hayashi, Yoshitaka

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2010165545	A	20100729	JP 2009-6495	20090115
PRIORITY APPLN. INFO.:			JP 2009-6495	20090115

JP 2010165545

A

20100729

JP 2009-6495

200901

15

PRIORITY APPLN. INFO.:

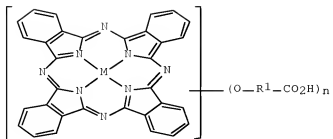
JP 2009-6495

200901

15

OTHER SOURCE(S): MARPAT 153:275104

GI



AB The title electrode is equipped with an inorg. semiconductor and a carboxyl group-containing phthalocyanine-type photosensitizing dye I (M = Cu, Zn, or Ru; R¹ = divalent aromatic ring.; n = 1-4 integer). The title photoelec. converter, e.g., solar cell, optical sensor, is equipped with the semiconductor electrode and a counter electrode placed via an electrolyte layer. The electrode provides high sensitivity to near-IR region, and high utilization of the solar light.

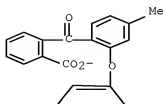
IT 1236954-13-4 1236954-20-3

RL: TEM (Technical or engineered material use); USES (Uses)
(dye; semiconductor electrode containing phthalocyanine dye for photoelec. converter)

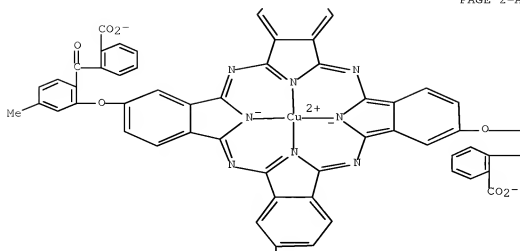
RN 1236954-13-4 HCAPLUS

CN Cuprate(4-), [[2,2',2'',2'''-[(29H,31H-phthalocyanine-2,9,16,23-tetrayl-κN29,κN30,κN31,κN32)tetrakis[oxy(4-methyl-2,1-phenylene)carbonyl]]tetrakis[benzoato]](6-)]-, hydrogen (1:4), (SP-4-1)- (CA INDEX NAME)

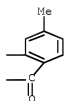
PAGE 1-A



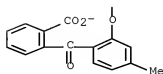
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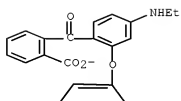


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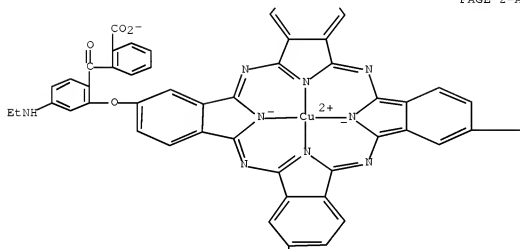


RN 1236954-20-3 HCAPLUS
 CN Cuprate(4-), [[2,2',2'',2'''-[(29H,31H-phthalocyanine-2,9,16,23-tetrayl-κN29,κN30,κN31,κN32)tetrakis[oxy[4-(ethylamino)-2,1-phenylene]carbonyl]]tetrakis[benzoato]](6-)]-, hydrogen (1:4), (SP-4-1)- (CA INDEX NAME)

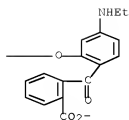
PAGE 1-A



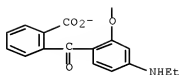
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● 4 H⁺

IPCI H01M0014-00 [I,A]; H01L0031-04 [I,A]; C09B0047-18 [N,A]; C09B0047-04 [N,C*]
 IPCR H01M0014-00 [I,C]; H01M0014-00 [I,A]; C09B0047-04 [N,C]; C09B0047-18 [N,A]; H01L0031-04 [I,C]; H01L0031-04 [I,A]
 CC 76-3 (Electric Phenomena)
 Section cross-reference(s): 52, 73
 IT 1236954-13-4 1236954-17-8 1236954-19-0
 1236954-20-3 1236954-21-4 1236954-23-6
 RL: TEM (Technical or engineered material use); USES (Uses)
 (dye; semiconductor electrode containing phthalocyanine dye for photoelec. converter)

L30 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2010:910606 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 153:245579
 TITLE: Photosensitive resin compositions
 containing phthalocyanine colorants for
 near-infrared absorbers, optical filters, their
 manufacture, and liquid crystal displays
 equipped therewith
 INVENTOR(S): Koyama, Yoshinori
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 22pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2010160380	A	20100722	JP 2009-3233	20090109
PRIORITY APPLN. INFO.:			JP 2009-3233	20090109

AB The comps. contain (A) colorants containing phthalocyanines having absorption maximum wavelength in the near-IR region, (B) binder resins, (C) photopolymerizable compds., (D) photopolymn. initiators, and (E) solvents. The optical filters with fine patterns are manufactured by application of the comps. on a substrate, stripping of the solvent, exposure through a mask, development, and heat treatment.

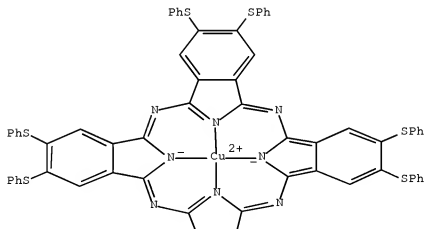
IT 928306-01-8, Excolor IR 17

RL: TEM (Technical or engineered material use); USES (Uses)
 (Excolor IR 17, colorant; photosensitive resin comps.
 containing phthalocyanine colorants and giving near-IR-absorbing fine
 patterns for optical filters for LCD)

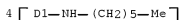
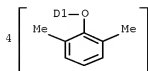
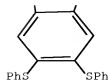
RN 928306-01-8 HCAPLUS

CN Copper, [C,C,C,C-tetrakis(2,6-dimethylphenoxy)-NC,NC,NC,N1-tetrahexyl-2,3,9,10,16,17,23,24-octakis(phenylthio)-29H,31H-phthalocyanine-C,C,C,1-tetraminato(2-)-κN29,κN30,κN31,κN32]- (CA INDEX NAME)

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- IPCI G02B0005-22 [I,A]; G03F0007-004 [I,A]; G03F0007-40 [I,A];
C09K0003-00 [I,A]; C07D0487-22 [N,A]; C07D0487-00 [N,C*]
- IPCR G02B0005-22 [I,C]; G02B0005-22 [I,A]; C07D0487-00 [N,C]; C07D0487-22 [N,A]; C09K0003-00 [I,C]; C09K0003-00 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]; G03F0007-40 [I,C]; G03F0007-40 [I,A]
- CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 74
- ST photosensitive resin compn near IR absorber; near IR
absorbing phthalocyanine colorant photosensitive compn;
fine pattern optical filter manuf LCD
- IT Optical materials
(IR absorbers; photosensitive resin compns. containing
phthalocyanine colorants and giving near-IR-absorbing fine
patterns for optical filters for LCD)
- IT IR materials
(absorbers; photosensitive resin compns. containing
phthalocyanine colorants and giving near-IR-absorbing fine
patterns for optical filters for LCD)
- IT Dyes
(near-IR-absorbing, phthalocyanines; photosensitive
resin compns. containing phthalocyanine colorants and giving
near-IR-absorbing fine patterns for optical filters for LCD)
- IT Liquid crystal displays
Optical filters
Photoimaging materials
(photosensitive resin compns. containing phthalocyanine
colorants and giving near-IR-absorbing fine patterns for optical
filters for LCD)
- IT 412943-96-5, Excolor IR 10A
RL: TEM (Technical or engineered material use); USES (Uses)
(Excolor IR 10A, colorant; photosensitive resin compns.
containing phthalocyanine colorants and giving near-IR-absorbing fine
patterns for optical filters for LCD)
- IT 845781-82-0, Excolor IR 12
RL: TEM (Technical or engineered material use); USES (Uses)
(Excolor IR 12, colorant; photosensitive resin compns.
containing phthalocyanine colorants and giving near-IR-absorbing fine
patterns for optical filters for LCD)
- IT 928306-01-8, Excolor IR 17

- RL: TEM (Technical or engineered material use); USES (Uses)
(Excolor IR 17, colorant; photosensitive resin compns.
containing phthalocyanine colorants and giving near-IR-absorbing fine
patterns for optical filters for LCD)
- IT 857350-29-9P, Benzyl methacrylate-FA 513M-methacrylic acid copolymer
ester with glycidyl methacrylate
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or
engineered material use); PREP (Preparation); RACT (Reactant or
reagent); USES (Uses)
(binder; photosensitive resin compns. containing
phthalocyanine colorants and giving near-IR-absorbing fine
patterns for optical filters for LCD)
- IT 71868-10-5, Irgacure 907
RL: CAT (Catalyst use); USES (Uses)
(photopolymer. initiator; photosensitive resin compns.
containing phthalocyanine colorants and giving near-IR-absorbing fine
patterns for optical filters for LCD)
- IT 1233966-20-5P
RL: IMF (Industrial manufacture); PEP (Physical, engineering or
chemical process); TEM (Technical or engineered material use); PREP
(Preparation); PROC (Process); USES (Uses)
(photosensitive resin compns. containing phthalocyanine
colorants and giving near-IR-absorbing fine patterns for optical
filters for LCD)
- IT 29570-58-9, Dipentaerythritol hexaacrylate
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT
(Reactant or reagent); USES (Uses)
(photosensitive resin compns. containing phthalocyanine
colorants and giving near-IR-absorbing fine patterns for optical
filters for LCD)

L30 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:1443145 HCAPLUS Full-text

DOCUMENT NUMBER: 152:50817

TITLE: Preparation of 1-3 generation dendritic aryl
ether metallophthalocyanine complexes supported
on polymer nanoparticle
Peng, Yiru; Zhang, Hong; Huang, Baoquan
Fujian Normal University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu,
32pp.
CODEN: CNXKEV

DOCUMENT TYPE: Patent
LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

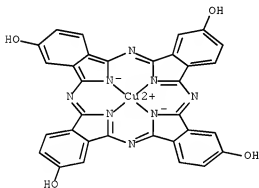
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 101580506	A	20091118	CN 2009-10111846	200905 26
PRIORITY APPLN. INFO.:			CN 2009-10111846	200905 26

OTHER SOURCE(S): CASREACT 152:50817; MARPAT 152:50817
GI

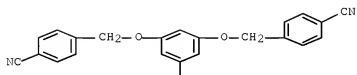
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

- AB The title dendritic phthalocyanine complex is presented in I (M = H, Si, Fe, Ti, Co, Zn, Al or Cu; R = cyano, nitro, carboxy or ester group). The title polymer nanoparticle is prepared by dissolving poly(N-benzoyloxycarbonyl lysine)-polyethylene glycol-poly(N-benzoyloxycarbonyl lysine) and polyethylene glycol-poly(N-benzoyloxycarbonyl lysine) in DMF/DMSO, dissolving compound (9), (10) or (11) in DMF, mixing the two solns., adding water, dialyzing for 48-72 h, and membrane filtration. The compound (9), (10) or (11) can be replaced with compound (12), (13) or (14), and the DMF solvent for dissolving can be changed into Na dihydrogen phosphate. The amphiphilic block copolymer can be polylysine-polyethylene glycol-polylysine and polyethylene glycol-polylysine, and poly(N-benzoyloxycarbonyl lysine)-polyethylene glycol-poly(N-benzoyloxycarbonyl lysine) and polyethylene glycol-poly(N-benzoyloxycarbonyl lysine). The title complex and the complex-loading polymer nanoparticle can be used as photosensitizer for photodynamic therapy.
- IT 21707-33-5DP, dendritic derivs. with 3,5-dihydroxybenzyl alc. and p-cyanobenzyl bromide or p-carboxybenzyl bromide
1196456-14-0P 1196456-15-1P
- RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of 1-3 generation dendritic aryl ether metallophthalocyanine complexes supported on polymer nanoparticle and their use as photosensitizer for photodynamic therapy)
- RN 21707-33-5 HCAPLUS
- CN Copper, [29H,31H-phthalocyanine-2,9,16,23-tetrolato(2-)-
κN29,κN30,κN31,κN32]-, (SP-4-1)- (9CI) (CA
INDEX NAME)

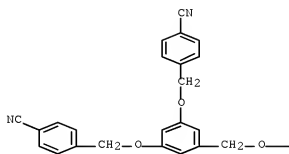


- RN 1196456-14-0 HCAPLUS
- CN Copper, [[4,4',4'',4''',4'''',4''''',4''''',4''''''-[(29H,31H-phthalocyanine-2,9,16,23-tetrayl-
κN29,κN30,κN31,κN32) tetrakis[oxyethylene-
5,1,3-benzenetriylbis(oxyethylene)]] octakis[benzonitrilato]] (2-)-,
(SP-4-1)- (CA INDEX NAME)

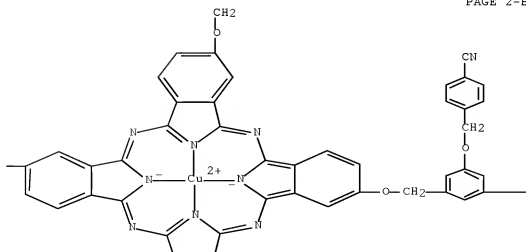
PAGE 1-B



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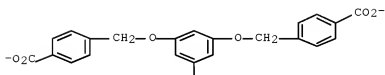


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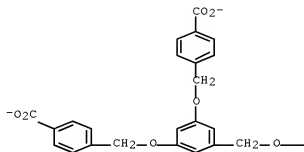


KN29, KN30, KN31, KN32) tetrakis[oxymethylene-5,1,3-benzenetriylbis(oxymethylene)]octakis[benzenecarboxylato]](10-)-, hydrogen (1:8), (SP-4-1)- (CA INDEX NAME)

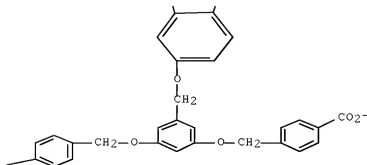
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PAGE 2-A



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- IPCI C07D0487-22 [I,A]; C07D0487-00 [I,C*]; C08L0077-04 [I,A]; C08L0077-00 [I,C*]; C08L0071-02 [I,A]; C08L0071-00 [I,C*]; C08K0005-3467 [I,A]; C08K0005-00 [I,C*]; A61K0031-409 [I,A]; A61K0041-00 [I,A]; A61K0031-785 [I,A]; A61K0031-74 [I,C*]
- IPCR C07D0487-00 [I,C]; C07D0487-22 [I,A]; A61K0031-409 [I,C]; A61K0031-409 [I,A]; A61K0031-74 [I,C]; A61K0031-785 [I,A]; A61K0041-00 [I,C]; A61K0041-00 [I,A]; C08K0005-00 [I,C]; C08K0005-3467 [I,A]; C08L0071-00 [I,C]; C08L0071-02 [I,A]; C08L0077-00 [I,C]; C08L0077-04 [I,A]
- CC 78-7 (Inorganic Chemicals and Reactions)
- ST Section cross-reference(s): 35, 63
polymer supported dendritic metallophthalocyanine prep
photosensitizer photodynamic therapy
- IT Polyesters
RL: DGN (Diagnostic use); IMF (Industrial manufacture); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
(dendrimers; preparation of 1-3 generation dendritic aryl ether metallophthalocyanine complexes supported on polymer nanoparticle and their use as photosensitizer for photodynamic therapy)
- IT Dendrimers
RL: DGN (Diagnostic use); IMF (Industrial manufacture); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyesters; preparation of 1-3 generation dendritic aryl ether metallophthalocyanine complexes supported on polymer nanoparticle and their use as photosensitizer for photodynamic therapy)
- IT Nanoparticles
Photodynamic therapy
Photosensitizers, pharmaceutical
(preparation of 1-3 generation dendritic aryl ether metallophthalocyanine complexes supported on polymer nanoparticle and their use as photosensitizer for photodynamic therapy)
- IT Metallophthalocyanines
RL: DGN (Diagnostic use); IMF (Industrial manufacture); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 1-3 generation dendritic aryl ether

metallophthalocyanine complexes supported on polymer nanoparticle and their use as photosensitizer for photodynamic therapy)

- IT Dendrimers
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (preparation of 1-3 generation dendritic aryl ether metallophthalocyanine complexes supported on polymer nanoparticle and their use as photosensitizer for photodynamic therapy)
- IT 68922-92-9DP, dendrimer, metallophthalocyanin derivs. 158620-94-1DP, dendritic derivs. with 3,5-dihydroxybenzyl alc. and p-cyanobenzyl bromide or p-carboxybenzyl bromide 1196456-07-1P 1196456-09-3P
 RL: DGN (Diagnostic use); IMF (Industrial manufacture); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of 1-3 generation dendritic aryl ether metallophthalocyanine complexes supported on polymer nanoparticle and their use as photosensitizer for photodynamic therapy)
- IT 21707-33-5DP, dendritic derivs. with 3,5-dihydroxybenzyl alc. and p-cyanobenzyl bromide or p-carboxybenzyl bromide 58054-68-5DP, dendritic derivs. with 3,5-dihydroxybenzyl alc. and p-cyanobenzyl bromide or p-carboxybenzyl bromide 263720-15-6DP, dendritic derivs. with 3,5-dihydroxybenzyl alc. and p-cyanobenzyl bromide or p-carboxybenzyl bromide 369361-75-1DP, dendritic derivs. with 3,5-dihydroxybenzyl alc. and p-cyanobenzyl bromide or p-carboxybenzyl bromide 957763-21-2DP, dendritic derivs. with 3,5-dihydroxybenzyl alc. and p-cyanobenzyl bromide or p-carboxybenzyl bromide 1196456-10-6P 1196456-11-7P 1196456-12-8P 1196456-13-9P 1196456-14-0P 1196456-15-1P 1196456-16-2P 1196456-17-3P 1196456-18-4P 1196456-19-5P 1196456-20-8P 1196456-23-1DP, dendritic derivs. with 3,5-dihydroxybenzyl alc. and p-cyanobenzyl bromide or p-carboxybenzyl bromide 1196456-26-4P 1196456-28-6P 1196456-29-7P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of 1-3 generation dendritic aryl ether metallophthalocyanine complexes supported on polymer nanoparticle and their use as photosensitizer for photodynamic therapy)
- IT 146670-57-7P 146670-58-8P 146670-59-9P 151136-09-3P 151136-13-9P 1196456-04-8P 1196456-05-9P 1196456-06-0P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of 1-3 generation dendritic aryl ether metallophthalocyanine complexes supported on polymer nanoparticle and their use as photosensitizer for photodynamic therapy)
- IT 558-13-4, Carbon tetrabromide 17201-43-3 29654-55-5 31643-49-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of 1-3 generation dendritic aryl ether metallophthalocyanine complexes supported on polymer nanoparticle and their use as photosensitizer for photodynamic therapy)
- IT 207746-61-0 851024-37-8
 RL: NUU (Other use, unclassified); USES (Uses)
 (support; preparation of 1-3 generation dendritic aryl ether metallophthalocyanine complexes supported on polymer nanoparticle and their use as photosensitizer for photodynamic therapy)

therapy)

L30 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2009:1335266 HCAPLUS Full-text
 DOCUMENT NUMBER: 151:563789
 TITLE: Aryl ether type dendritic phthalocyanine and metallophthalocyanins of 1-3 generation as photosensitizers for photodynamic therapy, and preparation method thereof
 INVENTOR(S): Peng, Yiru; Zhang, Hong
 PATENT ASSIGNEE(S): Fujian Normal University, Peop. Rep. China
 SOURCE: Faming Zhuanli Shengqing Gongkai Shuomingshu, 25pp.
 CODEN: CNXKEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 101565421	A	20091028	CN 2009-10111845	20090526
PRIORITY APPLN. INFO.:			CN 2009-10111845	20090526

OTHER SOURCE(S): MARPAT 151:563789

AB The title aryl ether type dendritic phthalocyanine and metallophthalocyanins have three chemical structures as shown in page 2-4, wherein M = H, Si, Fe, Ti, Co, Zn, Al, or Cu; and R = CN, NO₂, COOH, or ester group. The preparation method comprises performing Frechet reaction on 3,5-dihydroxybenzyl alc. and p-cyanobenzyl bromide to obtain dendritic alc. of 1-3 generation with CN as terminal group; allowing to react with 4-nitrophthalonitrile to obtain dendritic phthalocyanin precursors of 1-3 generation with CN as terminal group; cyclizing in the presence of 1,8-diazabicyclo[5.4.0]undec-7-ene as catalyst and/or inorg. salt template to obtain aryl ether type dendritic phthalocyanins or metallophthalocyanins of 1-3 generation with CN as terminal group; and/or hydrolyzing CN terminal group into COOH terminal group. The inventive dendritic phthalocyanine and metallophthalocyanins of 1-3 generation can not aggregate even at high concentration and have high quantum yield of singlet O and high photosensitive activity, and is used as photosensitizers for photodynamic therapy.

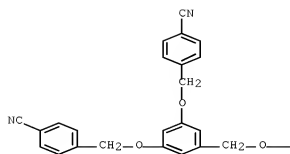
IT 21707-33-5DP, dendritic derivs. with 3,5-dihydroxybenzyl alc. and p-cyanobenzyl bromide or p-carboxybenzyl bromide
 1196456-14-OP 1196456-15-IP

RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of aryl ether type dendritic phthalocyanine and metallophthalocyanins of 1-3 generation as photosensitizers for photodynamic therapy)

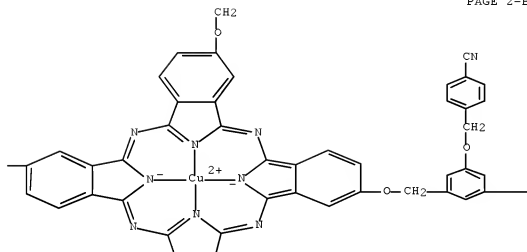
RN 21707-33-5 HCAPLUS

CN Copper, [29H,31H-phthalocyanine-2,9,16,23-tetrolato(2)-
 kN29,kN30,kN31,kN32]-, (SP-4-1)- (9CI) (CA
 INDEX NAME)

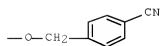
PAGE 2-A



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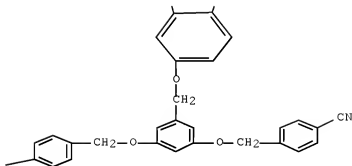
PAGE 2-C



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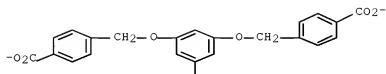


PAGE 3-B

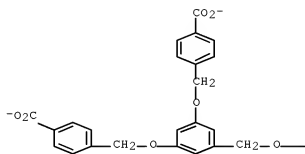


RN	1196456-15-1	HCAPLUS
CN	Cuprate(8-), [[4,4',4'',4''',4''''',4''''''',4''''''''',4'''''''''-(29H,31H-phthalocyanine-2,9,16,23-tetrayl-kappa29,kappa30,kappa31,kappa32)tetrakis[oxyethylene-5,1,3-benzenetriylbis(oxyethylene)]]octakis[benzenecarboxylato]](10-)]-, hydrogen (1A), (SP-4-1)-(CA INDEX NAME)	

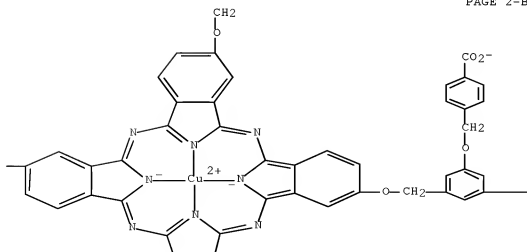
PAGE 1-B



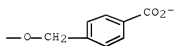
PAGE 2-A



PAGE 2-B



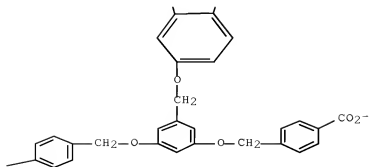
PAGE 2-C



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IPCI C07D0487-22 [I,A]; C07D0487-00 [I,C*]; A61K0031-409 [I,A];
A61K0041-00 [I,A]

IPCR C07D0487-00 [I,C]; C07D0487-22 [I,A]; A61K0031-409 [I,C];
A61K0031-409 [I,A]; A61K0041-00 [I,C]; A61K0041-00 [I,A]

CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 35, 63

ST dendritic phthalocyanine metallophthalocyanin prepn photodynamic
therapy photosensitizer

IT Photodynamic therapy
Photosensitizers, pharmaceutical
(preparation of aryl ether type dendritic phthalocyanine and
metallophthalocyanins of 1-3 generation as
photosensitizers for photodynamic therapy)

IT Dendrimers
Metallophthalocyanines
RL: IMF (Industrial manufacture); PRP (Properties); PREP
(Preparation)
(preparation of aryl ether type dendritic phthalocyanine and
metallophthalocyanins of 1-3 generation as
photosensitizers for photodynamic therapy)

IT 6674-22-2, 1,8-Diazabicyclo[5.4.0]undec-7-ene
RL: CAT (Catalyst use); USES (Uses)
(preparation of aryl ether type dendritic phthalocyanine and
metallophthalocyanins of 1-3 generation as
photosensitizers for photodynamic therapy)

IT 68922-92-9DP, dendrimer, metallophthalocyanin derivs.
158620-94-1DP, dendritic derivs. with 3,5-dihydroxybenzyl alc. and
p-cyanobenzyl bromide or p-carboxybenzyl bromide 1196456-07-1P
RL: DGN (Diagnostic use); IMF (Industrial manufacture); PRP
(Properties); BIOL (Biological study); PREP (Preparation); USES
(Uses)
(preparation of aryl ether type dendritic phthalocyanine and
metallophthalocyanins of 1-3 generation as
photosensitizers for photodynamic therapy)

IT 21707-33-5DP, dendritic derivs. with 3,5-dihydroxybenzyl
alc. and p-cyanobenzyl bromide or p-carboxybenzyl bromide
58054-68-5DP, dendritic derivs. with 3,5-dihydroxybenzyl alc. and
p-cyanobenzyl bromide or p-carboxybenzyl bromide 263720-15-6DP,
dendritic derivs. with 3,5-dihydroxybenzyl alc. and p-cyanobenzyl
bromide or p-carboxybenzyl bromide 369361-75-1DP, dendritic
derivs. with 3,5-dihydroxybenzyl alc. and p-cyanobenzyl bromide or
p-carboxybenzyl bromide 957763-21-2DP, dendritic derivs. with
3,5-dihydroxybenzyl alc. and p-cyanobenzyl bromide or p-carboxybenzyl
bromide 1196456-09-3P 1196456-10-6P 1196456-11-7P
1196456-12-8P 1196456-13-9P 1196456-14-0P
1196456-15-1P 1196456-16-2P 1196456-17-3P
1196456-18-4P 1196456-19-5P 1196456-20-8P 1196456-23-1DP,
dendritic derivs. with 3,5-dihydroxybenzyl alc. and p-cyanobenzyl
bromide or p-carboxybenzyl bromide 1196456-26-4P 1196456-28-6P
1196456-29-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of aryl ether type dendritic phthalocyanine and
metallophthalocyanins of 1-3 generation as
photosensitizers for photodynamic therapy)

IT 146670-57-7P 146670-58-8P 146670-59-9P 151136-09-3P
151136-13-9P 1196456-04-8P 1196456-05-9P 1196456-06-0P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP
(Preparation); RACT (Reactant or reagent)
(preparation of aryl ether type dendritic phthalocyanine and
metallophthalocyanins of 1-3 generation as

photosensitizers for photodynamic therapy)
 IT 558-13-4, Carbon tetrabromide 17201-43-3 29654-55-5,
 3,5-Dihydroxybenzyl alcohol 31643-49-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of aryl ether type dendritic phthalocyanine and
 metallophthalocyanines of 1-3 generation as
 photosensitizers for photodynamic therapy)

L30 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:251696 HCAPLUS Full-text

DOCUMENT NUMBER: 150:362817

TITLE: Photosensitive colorant compositions
 for manufacture of color filters of display
 devices

INVENTOR(S): Akiyama, Yuji

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Faming Zhuanli Shengqing Gongkai Shuomingshu,
 77pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

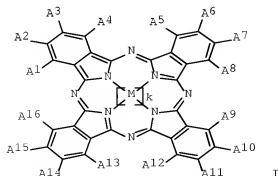
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

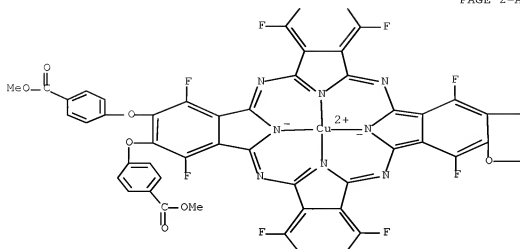
PATENT NO. ----- -----	KIND	DATE -----	APPLICATION NO. -----	DATE
CN 101373329	A	20090225	CN 2008-10210010	200808 22
JP 2009051896	A	20090312	JP 2007-218137	200708 24
KR 2009021083	A	20090227	KR 2008-81771	200808 21
PRIORITY APPLN. INFO.:			JP 2007-218137	A 200708 24

OTHER SOURCE(S): MARPAT 150:362817

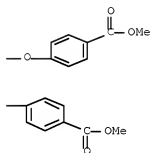
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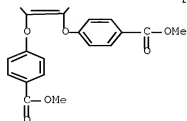
PAGE 2-A



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IPCI G03F0007-004 [I,A]; G02B0005-23 [I,A]; G02B0005-22 [I,C*];
 C09B0047-04 [I,A]
 IPCR G03F0007-004 [I,C]; G03F0007-004 [I,A]; C09B0047-04 [I,C];
 C09B0047-04 [I,A]; G02B0005-22 [I,C]; G02B0005-23 [I,A]

- CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST phthalocyanine dye photosensitive compn color filter display
- IT Azo dyes
Dyes
Liquid crystal displays
Optical filters
Optical imaging devices
Photoinaging materials
(photosensitive colorant compns. for manufacture of heat- and light-resistant color filters of display devices)
- IT 117-61-3, 4,4'-Diaminobiphenyl-2,2'-disulfonic acid 543-82-8, 1,5-Dimethylhexylamine 769-42-6 22374-89-6, 3-Aminobutylbenzene 28141-13-1 163917-12-2 1133229-05-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(photosensitive colorant compns. for manufacture of heat- and light-resistant color filters of display devices)
- IT 1105039-71-1P 1105712-71-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(photosensitive colorant compns. for manufacture of heat- and light-resistant color filters of display devices)
- IT 217483-17-5P 857350-29-9P, Benzyl methacrylate-FA 513M-methacrylic acid copolymer, ester with glycidyl methacrylate 1105039-74-4P 1133229-06-7P 1133691-69-6P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photosensitive colorant compns. for manufacture of heat- and light-resistant color filters of display devices)
- IT 29570-58-9, DPHA 101661-95-4, A GLY 3E 103998-41-0, NK 3212
RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive colorant compns. for manufacture of heat- and light-resistant color filters of display devices)

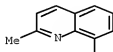
L30 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2007:1099295 HCAPLUS Full-text
DOCUMENT NUMBER: 150:182126
TITLE: Synthesis, characterization and
photosensitivity study of

tetrakis- α -(2-methyl-8-quinolinoxy)metallo
phthalocyanines
AUTHOR(S): Xue, Jin-Ping; Liu, Hong; Fan, Chang-An; Hong,
Hu-Ming; Chen, Nai-Sheng; Huang, Jin-Ling
CORPORATE SOURCE: Institute of Functional Materials, College of
Chemistry and Chemical Engineering, Fuzhou
University, Fuzhou, 350002, Peop. Rep. China
SOURCE: Huaxue Xuebao (2007), 65(16), 1605-1611
CODEN: HHHPA4; ISSN: 0567-7351
PUBLISHER: Huaxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
OTHER SOURCE(S): CASREACT 150:182126

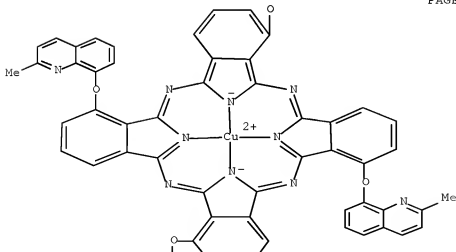
AB Cobalt(II), nickel(II), copper(II) and zinc(II) coordination compds. of tetrakis- α -(2-methyl-8-quinolinoxy)phthalocyanine were synthesized by means of "DBU method". The title complexes were characterized by elemental anal., mass spectrum, UV-Vis and IR spectra. In addition, the rates of photo-generating singlet oxygen and the rate consts. of photodynamic oxidation of amino-acid for the complexes were measured by irradiation of laser at 670 nm, and the relations between their structures and photosensitivities were discussed.

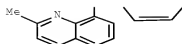
IT 1072843-26-5P
 RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation and photosensitivity study of
 tetrakis-*a*-(2-methyl-8-quinolinoxy)metallophthalocyanines)
 RN 1072843-26-5 HCAPLUS
 CN Copper, [1,8,15,22-tetrakis[(2-methyl-8-quinolinyl)oxy]-29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]-,
 (SP-4-1)- (CA INDEX NAME)

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CC 78-7 (Inorganic Chemicals and Reactions)
 Section cross-reference(s): 67, 74
 ST tetrakis-methylquinolinoxy metallophthalocyanine prep
 photosensitivity
 IT Catalysts
 (photochem.; preparation and photosensitivity study of
 tetrakis- α -(2-methyl-8-quinolinoxy)metallophthalocyanines)
 IT Light-sensitive materials
 (preparation and photosensitivity study of
 tetrakis- α -(2-methyl-8-quinolinoxy)metallophthalocyanines)
 IT Metallophthalocyanines
 RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic
 preparation); PREP (Preparation); USES (Uses)
 (preparation and photosensitivity study of
 tetrakis- α -(2-methyl-8-quinolinoxy)metallophthalocyanines)
 IT 6674-22-2, DBU
 RL: CAT (Catalyst use); USES (Uses)
 (preparation and photosensitivity study of
 tetrakis- α -(2-methyl-8-quinolinoxy)metallophthalocyanines)
 IT 1072843-25-4P 1072843-26-5P 1072843-28-7P
 1072843-30-1P
 RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic
 preparation); PREP (Preparation); USES (Uses)
 (preparation and photosensitivity study of
 tetrakis- α -(2-methyl-8-quinolinoxy)metallophthalocyanines)
 IT 60-18-4, Tyrosine, reactions 73-22-3, Tryptophan, reactions
 899659-99-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation and photosensitivity study of
 tetrakis- α -(2-methyl-8-quinolinoxy)metallophthalocyanines)
 IT 60-18-4DP, Tyrosine, oxidation product 73-22-3DP, L-Tryptophan,
 oxidation product
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and photosensitivity study of
 tetrakis- α -(2-methyl-8-quinolinoxy)metallophthalocyanines)

L30 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2002:807373 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 137:312357
 TITLE: Manufacture of sulfonyloxyated phthalocyanine
 compounds with good solvent solubility and
 light sensitivity
 INVENTOR(S): Oishi, Takao; Yashiro, Toru; Taniguchi,
 Masatoshi; Narizuka, Toshiro; Aoi, Hironao
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Yamada Chemical Co.,
 Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002309119	A	20021023	JP 2001-118841	20010417
JP 4472205	B2	20100602		
PRIORITY APPLN. INFO.:			JP 2001-118841	20010417

OTHER SOURCE(S): MARPAT 137:312357

AB The title compds. useful for optical recording such as CD-R application, are obtained from specific metal phthalocyanine compds. bearing arenesulfonyloxy groups on the aromatic rings. Thus, adding 0.41 g a 60% oil suspension of NaH 0.41 to a mixture of 0.75 g $\alpha, \alpha, \alpha, \alpha$ -tetrahydroxyvanadyl phthalocyanine and 10 mL dry THF, mixing for 10 min at 40°, adding 2.52 g 4-(trifluoromethyl)benzenesulfonyl chloride and mixing at 50-55° for 120 h gave a pigment.

IT 20468-22-8P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; manufacture of sulfonyloxyated phthalocyanine compds. with good solvent solubility and light sensitivity)

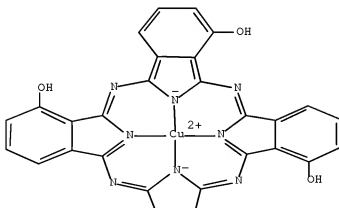
RN 20468-22-8 HCAPLUS

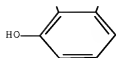
CN Copper, [29H,31H-phthalocyanine-1,8,15,22-tetrolato(2-)-

KN29,KN30,KN31,KN32]-, (SP-4-1)- (9CI) (CA

INDEX NAME)

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- IPCI C09B0047-08 [I,A]; C09B0047-04 [I,C*]; B41M0005-26 [I,A];
C07D0487-22 [I,A]; C07D0487-00 [I,C*]; G11B0007-244 [I,A];
G11B0007-24 [I,C*]
- IPCR B41M0005-26 [I,C*]; B41M0005-26 [I,A]; C07D0487-00 [I,C*];
C07D0487-22 [I,A]; C09B0047-04 [I,C*]; C09B0047-24 [I,A];
G11B0007-24 [I,C*]; G11B0007-24 [I,A]; G11B0007-244 [I,A];
C09B0047-08 [I,A]
- CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitizers)
Section cross-reference(s): 76
- IT Optical ROM disks
(manufacture of sulfonyloxyphthalocyanine compds. with good
solvent solubility and light sensitivity)
- IT Transition metal complexes
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
or engineered material use); PREP (Preparation); USES (Uses)
(phthalocyanine, arenesulfonyloxyphthalocyanine compds.; manufacture of
sulfonyloxyphthalocyanine compds. with good solvent solubility
and light sensitivity)
- IT Metallophthalocyanines
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
or engineered material use); PREP (Preparation); USES (Uses)
(transition metal complexes, arenesulfonyloxyphthalocyanine compds.;
manufacture of sulfonyloxyphthalocyanine compds. with good
solvent solubility and light sensitivity)
- IT 19056-23-6P, 3-Methoxyphthalonitrile 20468-22-8P
80345-84-2P 158621-02-4P 160988-54-5P 473254-09-0P
473254-10-3P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP
(Preparation); RACT (Reactant or reagent)
(intermediate; manufacture of sulfonyloxyphthalocyanine compds.
with good solvent solubility and light sensitivity)
- IT 473253-97-3P 473253-98-4P 473254-00-1P 473254-01-2P
473254-02-3P 473254-03-4P 473254-04-5P 473254-05-6P
473254-06-7P 473254-07-8P 473254-08-9P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
or engineered material use); PREP (Preparation); USES (Uses)
(manufacture of sulfonyloxyphthalocyanine compds. with good
solvent solubility and light sensitivity)
- IT 67-56-1, Methanol, reactions 98-09-9, Benzenesulfonyl chloride
98-59-9, p-Toluenesulfonyl chloride 98-60-2,
4-Chlorobenzenesulfonyl chloride 773-64-8,
2,4,6-Trimethylbenzenesulfonyl chloride 2991-42-6,
4-(Trifluoromethyl)benzenesulfonyl chloride 6553-96-4,
2,4,6-Triisopropylbenzenesulfonyl chloride 7447-39-4, Copper
chloride, reactions 7646-85-7, Zinc chloride, reactions
7718-98-1, Vanadium trichloride 15084-51-2,
4-tert-Butylbenzenesulfonyl chloride 51762-67-5,
3-Nitrophthalonitrile 244763-85-7 473254-11-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(manufacture of sulfonyloxyphthalocyanine compds. with good

solvent solubility and light sensitivity)

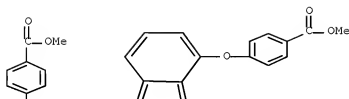
L30 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2001:541839 HCAPLUS Full-text
 DOCUMENT NUMBER: 135:129597
 TITLE: Photopolymerizing image recording material for lithographic plate
 INVENTOR(S): Kunita, Kazuto; Nagase, Hiroyuki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 76 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001201850	A	20010727	JP 2000-13049	20000121
JP 4139539	B2	20080827	JP 2000-13049	20000121

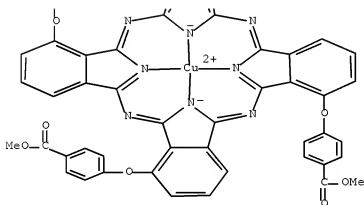
PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 135:129597
 AB The recording material has a photosensitive layer (A) containing (i) an addition polymerizable compound having ethylenic unsatd. bond, (ii) a photopolymn. initiator, and (iii) a colorant which exists as a mol. aggregate in A and is soluble in an alkali developing solution Preferably, the colorant is a phthalocyanine-type dye. The material shows high sensitivity and stable development.
 IT 351344-96-2P
 RL: DEV (Device component use); PNU (Preparation, unclassified);
 PREP (Preparation); USES (Uses)
 (preparation of, pigment; photopolymg. image recording material containing alkali-soluble colorant for lithog. plate)
 RN 351344-96-2 HCAPLUS
 CN Copper, [[tetramethyl 4,4',4'',4'''-[(29H,31H-phthalocyanine-1,8,15,22-tetrayl-kN29,kN30,kN31,kN32)tetrakis(oxy)]tetrakis[benzoato]](2-)]-, (SP-4-1)-(9CI) (CA INDEX NAME)

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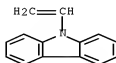


IPCI G03F0007-004 [I,A]; G03F0007-027 [I,A]; G03F0007-00 [I,A];
 C08F0002-48 [I,A]; C08F0002-46 [I,C*]
 IPCR G03F0007-027 [I,C*]; G03F0007-027 [I,A]; C08F0002-46 [I,C*];
 C08F0002-48 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A];
 G03F0007-09 [I,C*]; G03F0007-105 [I,A]; G03F0007-00 [I,C];
 G03F0007-00 [I,A]
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 IT 351344-96-2P 351344-99-5P
 RL: DEV (Device component use); PNU (Preparation, unclassified);
 PREP (Preparation); USES (Uses)
 (preparation of, pigment; photopolymerization image recording material containing
 alkali-soluble colorant for lithographic plate)
 OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS
 RECORD (2 CITINGS)

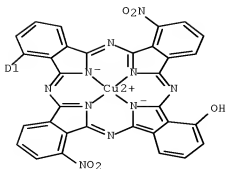
L30 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2010 ACS ON STN
 ACCESSION NUMBER: 2000:477703 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 133:244985
TITLE: Molecular orientation-photoconductivity relationship study of phthalocyanine polymer-oriented thin films
AUTHOR(S): Chen, Hong-Zheng; Wang, Mang; Yang, Shi-Lin
CORPORATE SOURCE: Department of Polymer Science and Engineering, Zhejiang University, Hangzhou, 310027, Peop. Rep. China
SOURCE: Journal of Applied Polymer Science (2000), 77(11), 2331-2339
CODEN: JAPNAB; ISSN: 0021-8995
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The mol. orientation-photocond. relationships of several kinds of phthalocyanine polymer (PPc)-oriented thin films have been studied in double-layered photoreceptor devices, where the charge-generation layers (CGLs) are phthalocyanine polymer-oriented thin films and the charge-transportation layers (CTLs) are composed of hole transporting materials of tetra-Ph benzidine or hydrazone. The oriented thin films containing PPc dispersed in polyvinyl difluoride (PVDF) were prepared by the elec. field orientation. The results showed that the photosensitivities of the phthalocyanine polymer (PPCs)-oriented thin films were higher than those of the unoriented PPCs thin films, and varied with their mol. structures and the mol. stacking in the films. This was thought to be due to the mol. orientation effect, which was demonstrated by the analyses of the polarized fluorescence, DSC, FTIR reflection absorption spectroscopy (FTIR-RAS), and angle-dependent XPS.
IT 292832-89-4P 292832-90-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(mol. orientation-photocond. relationship study of phthalocyanine polyvinyl difluoride polymer-oriented thin films)
RN 292832-89-4 HCAPLUS
CN Copper, [15-(9-ethenyl-9H-carbazolyl)-8,22-dinitro-29H,31H-phthalocyanin-9-olato(2-)-kN29,kN30,kN31,kN32]-, polymer with acetonitrile (9CI) (CA INDEX NAME)
CM 1
CRN 176050-69-4
CMF C46 H23 Cu N11 O5
CCI CCS, IDS

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CM 2

CRN 75-05-8

CMF C2 H3 N

H3C—C—N

RN 292832-90-7 HCAPLUS

CN Copper, [15-(9-ethenyl-9H-carbazolyl)-8,22-dinitro-29H,31H-phthalocyanin-9-olato(2-)-κN29,κN30,κN31,κN32]-, polymer with 4-ethenylpyridine (9CI) (CA INDEX NAME)

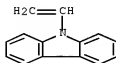
CM 1

CRN 176050-69-4

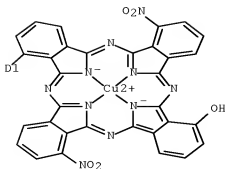
CMF C46 H23 Cu N11 O5

CCI CCS, IDS

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CM 2

CRN 100-43-6

CMF C7 H7 N



CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 76

IT 9003-05-8DP, reaction products with copper
 dinitrophthalocyaninediazonium salt 25067-59-8P,
 Polyvinylcarbazole 65670-15-7DP, reaction products with diazotized
 copper diaminodinitrophthalocyanine 146166-28-1DP, diazotized,
 reaction products with polyacrylamide and
 poly(acrylamide-vinylcarbazole) 292832-89-4P
 292832-90-7P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP
 (Preparation)
 (mol. orientation-photocond. relationship study of phthalocyanine
 polyvinyl difluoride polymer-oriented thin films)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS
 RECORD (2 CITINGS)

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L30 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1997:559672 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 127:301127
 ORIGINAL REFERENCE NO.: 127:58715a, 58718a
 TITLE: Preparation of TiO2 film by hydrolysis of
 titanium butoxide and interaction between
 sensitizing dyes and the film

AUTHOR(S): Wang, Liying; Zhang, Yan; Zeng, Guangfu; Xi,
 Shiquan

CORPORATE SOURCE: Chinese Academy of Sciences, Changchun Inst.

Applied Chemistry, Changchun, 130022, Peop. Rep.
China

SOURCE:

Wuli Huaxue Xuebao (1997), 13(8), 752-755

CODEN: WHXUEU; ISSN: 1000-6818

PUBLISHER:

Beijing Daxue Chubanshe

DOCUMENT TYPE:

Journal

LANGUAGE:

Chinese

AB A method of preparation of stable, homogeneous and controlled thickness TiO₂ film through hydrolysis of Ti(OC₄H₉)₄ is introduced in detail. The structure and property of the film have been investigated by means of SEM and FT-IR techniques. The strong quenching effect between sensitizing dyes and TiO₂ film is observed in their fluorescence spectra.

IT 155469-85-5

RL: PRP (Properties)

(photosensitizing dye showing interaction with titanium
dioxide film)

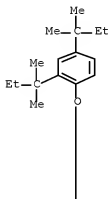
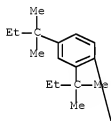
RN 155469-85-5 HCAPLUS

CN Copper, [2,9,16-tris[2,4-bis(1,1-dimethylpropyl)phenoxy]-23-(8-quinolinylloxy)-29H,31H-phthalocyaninato(2-)-

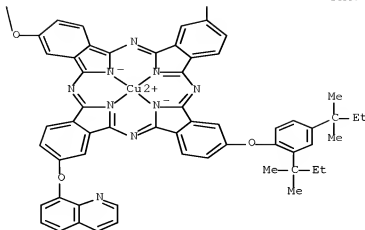
κN29,κN30,κN31,κN32]-, (SP-4-2)- (9CI) (CA

INDEX NAME)

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CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 73

ST titanium dioxide film prepn hydrolysis butoxide; quenching
photosensitizing dye titanium dioxide film

IT Fluorescence
(for studying interaction between photosensitizing dye
and titanium dioxide film)

IT Quantum transition
(in related to interaction between photosensitizing dye
and titanium dioxide film)

IT 155469-85-5 197158-40-0
RL: PRP (Properties)
(photosensitizing dye showing interaction with titanium
dioxide film)

L30 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1996:725317 HCAPLUS Full-text
DOCUMENT NUMBER: 126:48352
ORIGINAL REFERENCE NO.: 126:9527a,9530a
TITLE: Dyes for color filters, and

INVENTOR(S): Itoh, Hisato; Karasawa, Akio; Sugimoto, Kenichi
PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan
SOURCE: U.S., 35 pp., Cont.-in-part of U.S. Ser. No.
987,960, abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5578419	A	19961126	US 1994-223605	19940406
US 5789137	A	19980804	US 1996-653252	

				199605 24
US 5948597	A	19990907	US 1998-87845	199806 01
US 6306550	B1	20011023	US 1999-344350	199906 25
PRIORITY APPLN. INFO.:			JP 1991-328474	A 199112 12
			US 1992-987960	B2 199212 11
			US 1994-223605	A3 199404 06
			US 1996-653252	A3 199605 24
			US 1998-87845	A3 199806 01

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 126:48352

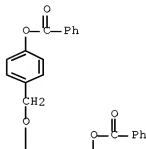
AB Dyes suitable for use in the fabrication of color filters are represented by D(A_Yn₁)n₂, where D represents a chromophoric (di)phenoxy- or (phenylthio)anthraquinone nucleus, A denotes a connecting group, Y is a photopolymerizable group having one of several specified structures, n₁ is 1-10,000, and n₂ is 1-10. Thus, 1-amino-4-hydroxy-2-(p-tolyloxy)anthraquinone was condensed with N-(chloromethyl)-2-phenylmaleimide in C₂H₄Cl₂ in the presence of ZnCl₂ to give a dye with λ_{max} 512 nm.

IT 151605-29-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(dyes for color filters and photosensitive resin
comps. containing them)

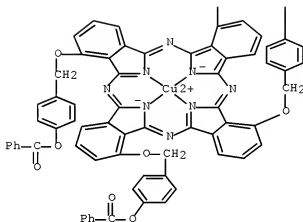
RN 151605-29-7 HCAPLUS

CN Copper, [[29H,31H-phthalocyanine-1,8,15,22-tetrayltetrakis(oxyethylene-4,1-phenylene)tetraabzoato](2-)-N₂₉,N₃₀,N₃₁,N₃₂]-, (SP-4-1)- (9CI) (CA INDEX NAME)

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INCL 430281100

IPCI C09B0001-16 [ICM,6]; C09B0001-00 [ICM,6,C*]; C09B0062-004 [ICS,6];
C09B0062-002 [ICS,6,C*]

IPCR C09B0069-00 [I,C*]; C09B0069-10 [I,A]; G03F0007-00 [I,C*];
G03F0007-00 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]

NCL 430/281.000; 008/647.000; 008/677.000; 008/678.000; 008/679.000;
430/007.000; 522/048.000; 522/904.000; 546/347.000; 548/546.000;
548/548.000; 552/223.000; 552/226.000; 552/242.000

CC 41-4 (Dyes, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitizers)

Section cross-reference(s): 74

IT Polyvinyl acetals

RL: SPN (Synthetic preparation); PREP (Preparation)

(l(butylpyridinio)vinyl]benzals, chromophore-terminated; dyes for
color filters and photosensitive resin compns. containing
them)

IT Liquid crystal displays

- (color filters; dyes for color filters and photosensitive resin compns. containing them)
- IT Anthraquinone dyes
(polymerizable; dyes for color filters and photosensitive resin compns. containing them)
- IT 151321-27-6P 151321-29-8P 151321-31-2P 151321-32-3P
151321-35-6P 151321-44-7P 151519-43-6P 151677-60-0P
184578-82-3P 184578-83-4P 184578-84-5P 184578-85-6P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dyes for color filters and photosensitive resin compns. containing them)
- IT 98-88-4, Benzoyl chloride 99-93-4, p-Hydroxyacetophenone
100-20-9, 1,4-Benzenedicarbonyl dichloride 100-52-7, Benzaldehyde, reactions 107-21-1, 1,2-Ethanediol, reactions 108-89-4, γ-Picoline 814-68-6, 2-Propenoyl chloride 2389-64-2
3814-20-8, p-Mercaptoacetophenone 16222-29-0, p-(Diethylamino)phenol 16474-11-6 21367-40-8 51762-67-5, 3-Nitrophthalonitrile 53013-87-9, N-(Chloromethyl)-3-phenylmaleimide 54841-24-6, 1,4-Diamino-2-chloroanthraquinone 154021-99-5 184578-81-2
184578-92-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(dyes for color filters and photosensitive resin compns. containing them)
- IT 81-42-5DP, 1,4-Diamino-2,3-dichloroanthraquinone, reaction products with low-mol.-weight poly(vinyl alc.) and butyl(formylstyryl)pyridinium bromide 147-14-8DP, polymerizable polyvinyl acetal derivs. 2478-67-3DP, reaction products with low-mol.-weight poly(vinyl alc.) and butyl(formylstyryl)pyridinium bromide 151321-24-3P
151321-25-4P 151321-26-5P 151321-36-7P 151321-37-8P
151321-38-9P 151321-39-0P 151321-40-3P 151321-41-4P
151321-42-5P 151321-45-8P 151321-46-9P 151321-47-0P
151321-48-1P 151321-49-2P 151321-50-5P 151321-51-6P
151321-52-7P 151321-53-8P 151321-54-9P 151321-55-0P
151321-56-1P 151321-57-2P 151321-58-3P 151321-59-4P
151321-60-7P 151321-61-8P 151321-62-9P 151321-63-0P
151321-66-3P 151321-67-4P 151321-68-5P 151321-69-6P
151321-70-9P 151321-71-0P 151321-72-1P 151321-73-2P
151321-74-3P 151321-77-6P 151321-81-2P 151605-23-1P
151605-25-3P 151605-26-4P 151605-27-5P 151605-28-6P
151605-29-7P 151605-30-0P 151605-31-1P 151605-32-2P
151605-33-3P 151629-18-4P 151652-80-1P 151677-55-3P
151677-55-4P 151677-61-1P 151677-62-2P 151677-63-3P
151677-64-4P 151704-26-6P 151704-27-7P 151704-28-8P
151704-38-0P 151710-87-1P 152103-69-0P 155569-73-6P
184578-79-8DP, reaction products with low-mol.-weight poly(vinyl alc.) and aminochlorohydroxyanthraquinone 184578-86-7P 184578-87-8P
184578-88-9P 184578-91-4P 184578-96-9P 184578-97-0P
184578-98-1P 184578-99-2P 184579-00-8P 184579-01-9P
184579-02-0P 184856-54-0P 184856-55-1P 184856-71-1P
184923-23-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(dyes for color filters and photosensitive resin compns. containing them)
- IT 144046-69-5, SD 17
RL: TEM (Technical or engineered material use); USES (Uses)
(dyes for color filters and photosensitive resin compns. containing them)
- IT 9002-89-5, Poly(vinyl alcohol)

RL: RCT (Reactant); RACT (Reactant or reagent)
(low-mol.-weight; dyes for color filters and photosensitive
resin comps. containing them)

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS
RECORD (4 CITINGS)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

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